BEFORE THE BOARD OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

UTAH CHAPTER OF THE SIERRA CLUB, SOUTHERN UTAH WILDERNESS ALLIANCE, NATURAL RESOURCES DEFENSE COUNCIL, and NATIONAL PARKS CONSERVATION ASSOCIATION, Petitioners, DIVISION OF OIL, GAS AND MINING and ALTON COAL DEVELOPMENT, LLC Respondents, Kane County, Utah, Respondent-Intervenors.	FINDINGS OF FACT, CONCLUSIONS OF LAW AND FINAL ORDER Docket No. 2009-019 Cause No. C/025/0005

This matter came before the Board of Oil, Gas and Mining (the "Board"), on Petitioners' Request for Agency Action appealing the decision of the Division of Oil, Gas & Mining (the "Division"), to approve the application of Alton Coal Development, LLC ("Alton" or "ACD"), to conduct surface coal mining and reclamation operations at the Coal Hollow Mine, Kane County, Utah, and granting Alton a permit to mine under the Utah Coal Mining and Reclamation Act ("UCMRA"). The hearing in this matter commenced on Wednesday, December 8, 2009, at 9:00 a.m., in the Department of Natural Resources Auditorium in Salt Lake City. Additional hearings were held on January 27, March 24, April 28–29, May 21–22, and June 11, 2010. The record closed upon submission of final post-hearing briefs on June 23, 2010. All proceedings

were conducted as formal hearings pursuant to Utah Code § 63G-4-206 and this Board's Rules of Practice and Procedure.

NOW THEREFORE, the Board, having fully considered the testimony adduced, the credibility of witnesses, the exhibits received, and arguments made at the hearing, and being fully advised in the premises, confirms the decision of the Division and grants the Coal Hollow Mine Permit No. C/025/005 on the basis of the following Findings of Fact, Conclusions of Law, and Order[1], entered herein:

FINDINGS OF FACT

The Parties

1. Petitioner Utah Chapter of the Sierra Club is a chapter of the Sierra Club, a national nonprofit organization.

2. Petitioner Natural Resources Defense Council is a national nonprofit environmental membership organization.

3. Petitioner National Parks Conservation Association is a nonprofit national organization.

4. Petitioner Southern Utah Wilderness Alliance is a nonprofit environmental membership organization with offices in Utah and Washington, D.C.

5. Respondent Utah Division of Oil, Gas and Mining ("the Division") is an agency within the Department of Natural Resources, an executive agency of the State of Utah.

[1] Many statements in this Findings of Fact, Conclusions of Law and Order pertain to ultimate facts or involve the application of law to fact. To the extent any finding of fact may be construed as a conclusion of law, the Board adopts it as such. To the extent any conclusion of law may be construed as a finding of fact, the Board adopts it as such.

6. Respondent Alton Coal Development LLC ("Alton" or "ACD") is a Nevada Limited Liability Company authorized to conduct business in the State of Utah, with corporate offices in Cedar City.

7. Respondent-intervenor Kane County is a political subdivision of the State of Utah.

8. By stipulation dated March 23, 2010,and accepted by the Board on April 29, 2010, all parties agreed that Petitioners had standing to pursue this action under Utah Code § 40-10-14(3) and Utah Admin. Code R645-100-200 and R645-300-210, and the Board therefore did not need to rule upon the issue.

Appearances

9. Petitioners were represented by Stephen H.W. Bloch and Tiffany Bartz, Southern Utah Wilderness Alliance, Walton D. Morris, Jr., Morris Law Office, *pro hac vice*, and Sharon Buccino, Natural Resources Defense Council, *pro hac vice*.

10. Respondent Utah Division of Oil, Gas and Mining was represented by Steven F. Alder and Fredric J. Donaldson, Assistant Attorneys General, State of Utah.

11. Respondent Alton Coal Development LLC was represented by Denise A. Dragoo and James P. Allen, Snell & Wilmer L.L.P., and Bennett E. Bayer, Landrum & Shouse LLP, *pro hac vice*.

12. Respondent-intervenor Kane County was represented by County Attorney Jim Scarth and Deputy County Attorney William Bernard.

13. The Board was represented by Michael S. Johnson and Megan DePaulis, Assistant Attorneys General, State of Utah.

Preliminary Matters

14. Alton submitted its application to the Division on June 14, 2007, to conduct surface coal mining operations at the Coal Hollow Mine on private land near Alton, Utah. The application was submitted pursuant to the Utah Coal Mining and Reclamation Act ("UCMRA"), Utah Code Ann. § 40-10-1, et seq.

15. The application was reviewed, determined to be incomplete, and denied by the Division on August 27, 2007.

16. Alton submitted supplemental information to the Division on January 24, 2008.

17. The Division determined the application to be administratively complete in light of this new information on March 14, 2008, and commenced its technical review.

18. The public was notified of the complete permit application through advertisement in the Southern Utah News from March 26 to April 16, 2008.

19. Responding to written requests, the Division convened an informal conference on June 16, 2008, in the Alton City Hall. None of the Petitioners appeared at the informal conference.

20. On October 19, 2009, the Division approved Alton's permit and issued proposed permit number C/025/005 for the Coal Hollow Mine.

21. On November 18, 2009, Petitioners, Utah Chapter of the Sierra Club, Southern Utah Wilderness Alliance, Natural Resources Defense Council, and National Parks Conservation Association, (hereinafter collectively referred to as "Petitioners") filed a Request for Agency Action and Request for a Hearing with this Board challenging the reasons for the approval ("the Petition").

22. The Petition alleged that the Division failed to follow applicable state law in approving the permit application and asked this Board to vacate the approval and/or remand the matter to the Division to correct the 32 permit deficiencies it alleged.

23. On November 19, 2009, ACD filed a motion for leave to intervene that was granted by the Board.

24. On December 8, 2009, Kane County filed a motion for leave to intervene that was also granted by the Board.

25. The Division, ACD, and Kane County each filed written answers to the allegations of deficiency in the Petition.

26. The Board initiated the hearing on December 9, 2009, by considering various procedural matters.

27. At the request of the parties, the Board thereafter received written arguments regarding the scope and standard of review.

28. On January 13, 2010, the Board issued its Order Concerning Scope and Standard of Review to govern the conduct of the hearing. The Board determined that it would conduct a

full evidentiary hearing and determine all legal and factual issues arising therein without deference to the Division's decision except under some circumstances where significant technical or scientific judgment was involved. The Board determined that Petitioners bore all burdens of proof necessary to overturn the decision of the Division.

The proposed form of the final order submitted by the Respondents and the objections thereto filed by Petitioners evidence disagreement among the parties concerning the standard of review the Board has applied in this case. Given this disagreement, the Board briefly addresses that topic herein in addition to what it stated in its Interim Order and its January 10, 2010 Order Concerning Scope and Standard of Review.[2]

The Board has weighed all of the evidence in the record in making the factual findings set forth herein without granting any deference to the findings made by the Division as a general rule. Based in part upon the *Save Our Cumberland Mountains, Inc. v. Office of Surface Mining Reclamation and Enforcement*[3] case (the "*SOCM*" decision) cited by Petitioners and more fully discussed in the January 12, 2010 Order, the Board has recognized that a limited degree of deference may, under certain circumstances, be applied where the factual question at issue involves substantial scientific or technical analysis.[4] Application of this limited deference may

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[2] Petitioners have suggested that the Board attach and incorporate by reference its January 10, 2010 Order Concerning Scope and Standard of Review. The Board believes this exercise to be unnecessary, however, as the Board's prior pronouncements in this case (except to the extent any later or final orders modify, clarify, differ from or add to such prior pronouncement) remain a part of the record and part of the body of the Board's rulings in this matter. To the extent necessary, the Board incorporates its prior orders by reference (except to the extent later orders modify or differ from such orders). The Board notes that a separate order setting forth the Board's reasoning on certain procedural and evidentiary rulings made during the course of the hearing is being issued in conjunction with the present Findings of Fact, Conclusions of Law and Order.

[3] No. NX-97-3-PR (U.S.D.O.I. -O.H.A., July 30, 1998). The SOCM decision is attached to Petitioners' Brief on the Scope of Review (filed on December 29, 2009) as Exhibit 1.

[4] As noted in the Interim Order, *SOCM* did not construe the UCMRA or Utah coal rules and is not binding upon this Board. The Board does not hold that all pronouncements set forth in *SOCM* should

or may not be necessary to the resolution of the various technical factual issues in this case. Thus, on technical questions, where the weight of the evidence supports the Division's finding, the Board's finding is consistent with that made by the Division without the application of any deference being necessary.[5] On technical questions for which the evidence presents a closer call but ultimately demonstrates nothing more than a difference of opinion and interpretation between the Petitioners' expert and the experts relied upon by the Division, this limited deference doctrine will be applied and the Division's finding will be upheld. If the Division's finding is contrary to the evidence, the Board will not uphold the Division's finding but will make a finding consistent with the evidence presented. Recognition of this limited deference doctrine on technical issues is consistent with the *SOCM* decision and other authorities which recognize that the permit-issuing agency is entitled to rely upon the expertise of its technical experts.

In this case, as more fully described below, the Board has found on all disputed issues involving substantial technical and scientific analysis that the weight of the evidence supports the Division's findings without the application of any deference being necessary. Given that the limited deference doctrine described above constitutes part of the standard of review to be applied to such questions, and despite the fact that application of such deference isn't necessary to the Board's findings announced herein, the Board has nevertheless noted on certain disputed technical issues that even if the evidence were construed to present a closer call that this deference doctrine would dictate the same result. Consequently, the presence of this limited

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control in this or future matters before this Board. Given that all parties have acknowledged the applicability of some degree of deference on technical questions under certain circumstances, the Board has looked to *SOCM* as persuasive authority in this regard for purposes of the present matter.

[5] It should be noted that the Board, by statutory design, possesses expertise in certain technical areas including geology, ecological and environmental matters, and mining. *See* Utah Code Ann. §40-6-4(2).

deference doctrine as part of the controlling standard of review reinforces the findings made herein.

29. The Division filed motions to dismiss Petitioners' Cultural Resource and Air Quality claims. The Board denied those motions on February 18, 2010.

30. Alton filed a Motion for Summary Decision relating to Petitioners' Cultural Resource and Air quality claims and a separate Motion for Summary Decision relating to Petitioners' Hydrology claims. With the parties' concurrence, the former was treated as a Motion to Dismiss and considered along with the Division's Motion to Dismiss the same claims, and denied as noted above. Alton withdrew the latter motion with respect to the hydrology claims.

Discovery

31. Discovery was conducted by Petitioners, the Division, and Alton pursuant to the terms of a stipulated discovery plan approved by the Board on January 27, 2010.

32. Petitioners took the depositions of the Division and Alton upon oral examination pursuant to Rule 30(b)(6) of the Utah Rules of Civil Procedure.

33. Alton and the Division took the oral depositions of Petitioners' expert witnesses Charles Norris and Elliott Lips.

34. At the request of Petitioners, Alton provided access to the Coal Hollow Mine Permit Area for Petitioners for the purposes of inspection and measuring, surveying, photographing, testing, or sampling the site.

35. A first site visit on March 2, 2010, by Elliott Lips and Tiffany Bartz, Esq., on behalf of Petitioners, was hampered by deep snow.

36. A second visit by Mr. Lips and Ms. Bartz occurred on May 12–13, 2010.

The Coal Hollow Mine

37. The proposed coal mine would be located in the Alton coalfield in Kane County approximately 3 miles south of the town of Alton, Utah.

38. Alton Coal Development, LLC proposes to mine the Smirl coal seam by surface mining methods.

39. The permit area consists of 635.64 acres of privately-owned surface. All of the coal included in the permit application is privately owned and leased to Alton.

40. Alton has applied to the Bureau of Land Management (BLM) for leases on federally-owned coal located adjacent to the Coal Hollow Permit area for future phases of mine development.

41. The mine as currently permitted would produce about 2,000,000 tons of fee coal annually for approximately 3 years.

42. Coal will be transported from the permit area in trucks on public highways.

The Evidentiary Hearing

43. Pursuant to the Board's April 7, 2010, Scheduling Order, an evidentiary hearing was held on April 29-30 and May 21-22, 2010, in Salt Lake City, Utah. An additional day of hearing was required and the hearing concluded on June 11, 2010.

44. Board Chairman Douglas E. Johnson and Board Members Ruland J. Gill, Jr., James T. Jensen, Kelly L. Payne, Samuel C. Quigley, and Jean Semborski were present for all proceedings. Board member Jake Y. Harouny was excused and did not participate in any of the proceedings.

45. Prior to beginning the evidentiary hearing, Petitioners prepared a final list of issues to be heard, narrowing the claims of the initial Petition to 17 claims of deficiency and waiving all other previously alleged claims. That final list of claims was attached to and made part of the Board's April 7, 2010, Scheduling Order. Findings of Fact and Conclusions of Law are set forth separately in this Final Order for each of the identified issues according to the sequence listed in the Scheduling Order. All other claims are dismissed in accordance with Petitioners' request.

46. Petitioners, the Division, and Alton each presented exhibits and examined witnesses, including cross examination of opposing witnesses. The Board finds that each party was afforded a full and fair opportunity to present its case.

47. The entire Permit Application Package ("PAP") was made an exhibit for purposes of the hearing, regardless of whether any specific reference was made to any particular section during the course of the hearings and the parties were entitled to rely upon the various provisions of the PAP.

48. The Board entered an Interim Order dated August 3, 2010 setting forth an announcement of the Board's basic ruling on each claim and directing the prevailing parties to prepare a more in-depth proposed Findings of Fact, Conclusions of Law and Order. A proposed order was filed by Respondents and Petitioners filed objections to its form. The Board took

these filings under consideration in fashioning the present Findings of Fact, Conclusions of Law and Final Order.

ISSUE 1: Has the Division made a determination of eligibility and effect related to cultural and historic resources for the entire permit area approved for the Coal Hollow Mine.

FINDINGS OF FACT

49. Documentary evidence admitted at the hearing shows that all of the permit area, and more than 3000 acres of surrounding area, were surveyed for the presence of archaeological sites and cultural resources in Cultural Resource Inventories dated March 10, 2006, January 9, 2008, and July 10, 2008, by Montgomery Archaeological Consultants.[6]

50. Alton, the Division, the State Historic Preservation Officer ("SHPO"), and federal agencies cooperated in preparing a Cultural Resources Management Plan (the "CRMP") to address cultural resources which may be affected by ACD's pending federal coal lease application for reserves located outside the current permit area. Development of the CRMP was not required to comply with the Board rules. The CRMP provides a long-term framework for dealing with cultural resources, including the possibility of newly-identified resources.

51. The record contains correspondence between the Division and SHPO showing that the Division evaluated the effects of the mining operations on all sites initially known to the Division within the permit area, prepared a "determination of eligibility and effect" and requested SHPO concurrence on this determination.

[6] All evidence admitted was considered and weighed by the Board. Any reference to specific items of evidence herein should not be construed as an indication that the Board did not consider the other evidence in the record which is not specifically mentioned in these findings.

52. The testimony at the hearing[7], confirmed by evidence of the Division-SHPO correspondence, established that 15 cultural resource sites inside the permit area were initially identified and made known to the Division and 14 of the sites were determined to be eligible for listing and were required to either be avoided or the effects on the sites will be mitigated.

53. The Division obtained the concurrence of the SHPO on their eligibility and effect determination and on the plans to avoid or mitigate the potential impact to the sites that it identified and determined to be affected.

54. At the time it approved the Coal Hollow Mine application on October 19, 2009 the Division found that it had taken into account the effect of the proposed coal mining and reclamation operations on all cultural and historic resources within the permit area and adjacent area that had been determined to be eligible for listing on the National Register of Historic Places and had obtained concurrence from the SHPO with its determination of eligibility and effect for these sites.

55. Two additional sites within the permit area were made known to the Division by Alton after permit approval. These sites have been evaluated by the Division for eligibility and effect and have received concurrence by SHPO. The Division immediately advised ACD in writing that an additional condition would be added to the permit decision that would require

[7] The Board received into evidence excerpts of the 30(b)(6) deposition transcripts of certain witnesses who also testified at the hearing concerning Issue Nos. 1 through 9 (specifically, excerpts of the depositions of Daron Haddock, Joe Helfrich, Jody Patterson and Priscilla Burton). The Board found these deposition excerpts in general to be less helpful than the live testimony, and therefore placed greater weight on the live testimony. The transcript excerpts were generally cumulative of, and less detailed than, the live testimony, the Board itself was able to observe and participate in the questioning of the subject witnesses during the live testimony, and the live testimony was more helpful because it was received in the context of the presentation of other evidence at the hearing. The deposition excerpts were therefore ultimately of little probative value to the Board in comparison to the live testimony.

mitigation or avoidance of the two newly identified sites and SHPO concurrence in the action. Preparation of a mitigation plan for these sites is pending.

56. The evidence did not establish that any site in the permit area had been overlooked or omitted from the determination of eligibility and effect. The evidence did not establish that SHPO clearance omitted any affected site. The evidence did not establish that mitigation or avoidance measures are inadequate for any site. The weight of the evidence supported the Division's actions in this regard.

CONCLUSIONS OF LAW

57. Petitioners have failed to meet their burden of proving that the Division's approval of the permit with regard to this issue was contrary to the evidence or was otherwise arbitrary or capricious or in violation of Utah Code § 9-8-404.

58. The Division is required to take into account the effect of the proposed permit on properties listed on and eligible for listing on the National Register of Historic Places before approving any "undertaking." Utah Code § 9-8-404(1); Utah Admin. Code R645-300-133.600.

59. In this matter, the "undertaking" is the issuance of a state mine permit for surface coal mining and reclamation operations located entirely on private land.

60. This Board's rules for permit applications implement the statutory mandate to "take into account" the effect on historic or cultural resources by requiring information and maps about known archaeological sites and cultural/historic sites eligible for listing on the National Register of Historic Places in the permit and adjacent areas. See Utah Admin. Code R645-301-411.140, 411.141.

61. The Rules also require that the permit application show evidence of coordination with, and clearances from, the State Historic Preservation Officer. R645-301-411.142.

62. The clearances can be based on plans for mitigation of adverse effects, and so long as it is completed before the resource is affected, this mitigation may occur after permit issuance. R645-301-411.144.

63. Compliance with regulatory requirements related to cultural resources can be assured after permit approval by imposing conditions on applicant's mining operations or practices. R645-300-133.600; R645-300-143; R645-303-222; R647-6-3.13; R645-223.300.

64. The Division complied with Utah Code § 9-8-404 by evaluating information contained in cultural resource inventories, participating in the CRMP process, and consulting with the SHPO for all sites identified by surveys covering the entire permit area.

65. The Division complied with this Board's rules at R645-301-411.140 through 411.144.

66. Petitioners did not demonstrate that the cultural resource information submitted by the applicant and available to the Division was inadequate under Utah Code Ann. § 9-8-404 or the Board's rules at R645-301-411.140 through 411.144. The weight of the evidence demonstrated the adequacy of the information for these purposes.

67. The permit application contains evidence of the required consultation with SHPO.

68. Consistent with R645-301-411.144 and the Division's findings when the permit was approved, the permit is conditioned on proper mitigation or avoidance of the two recently identified sites.

69. Omission of two sites from those identified in the Division's pre-approval consultations with SHPO was fully remedied.

70. The Division made the finding required by R645-300-133.600 that cultural and historic resources within the permit area were taken into account.

71. The Division made a complete determination of eligibility and effect related to cultural and historic resources for the entire permit area approved for the Coal Hollow Mine.

72. The Division took into account effects of the proposed mining and reclamation operations on all eligible sites within the permit area based on the surveys and the additional condition for mitigation or avoidance of the two recently identified sites.

73. The permit provides for dealing with sites discovered after operations begin, and the Board's rules provide for permit approval conditioned upon future mitigation of known or later discovered sites. Given that the Division remedied the omission of the two sites identified after application approval, and given that the Division imposed a new condition on the permit requiring mitigation pursuant to R645-301-411.144, the Board with respect to this issue upholds the Division's approval of the permit as conditioned by the requirement to avoid or mitigate the newly-identified sites.

ISSUES 2 and 3. Did the Division's determination of eligibility and effect related to cultural resources cover any area outside of the permit area; and did the Division consider a mitigation plan for any cultural or historic properties located wholly outside of the permit area.

FINDINGS OF FACT

74. The cultural resource surveys with their accompanying maps show that over 90 archaeological sites were identified by Alton at locations outside the permit area.

75. The Division was by these surveys adequately apprised of the historic sites that had been identified and their location relative to the permit boundary and was able to identify a subset of the identified sites that reasonably could be expected to be adversely impacted by coal mining and reclamation operations. These sites were either within the permit area or partially within the permit area. Some of these sites barely touched the permit boundary and some extended from 220 to 1000 feet beyond the permit boundary.

76. The Division evaluated sites located in the area adjacent to the permit boundary for eligibility and potential adverse effect.

77. Evidence produced at hearing and available in the record shows that sites located entirely beyond the permit boundary cannot reasonably be expected to be adversely impacted by coal mining and reclamation operations.

78. Surface disturbance is the only reasonably anticipated means of having an adverse impact on identified sites. Because surface disturbance must be confined to the permit area, sites located some distance from the permit area will escape any likely effect of "coal mining and reclamation operations."

79. The Division reasonably deemed off-permit adverse effects to cultural resources from stormwater drainage or blowing dust from coal mining and reclamation operations to be unlikely.

80. The Division's determination of potential adverse impacts beyond the permit boundary was reasonable and was based on sound analysis of the evidence of the potential for harm, thorough surveys of the identified locations and the SHPO's concurrence. The weight of the evidence supports the Division's determination on this issue.

81. The SHPO concurred in the Division's determination that adverse impacts to sites at the boundary of the permit area are prevented by avoidance of the sites and that this is appropriate mitigation as required by Utah Code § 9-8-404.

82. The evidence did not establish that any site located wholly outside the permit area reasonably can be expected to be adversely impacted by coal mining and reclamation operations. The evidence did not establish that any site other than those identified by the Division can reasonably be expected to be adversely impacted by coal mining and reclamation operations.

83. The Board finds that the Division properly identified all known eligible sites to the SHPO and obtained the SHPO's concurrence prior to approving the permit application.

CONCLUSIONS OF LAW

84. Petitioners have failed to meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

85. Utah Admin. Code R645-100-200 defines "adjacent area" as "the area outside the permit area where a resource or resources, determined according to the context in which adjacent

area is used, are or reasonably could be expected to be adversely impacted by proposed coal mining and reclamation operations."

86. This Board's rules do not require a map or a delineated boundary of an 'adjacent area' for cultural resources or any other resource. (See Utah Admin. Code R645-100 200 and R645-301-411.141).

87. The Division complied with Utah Code § 9-8-404 by taking into account the effects of Coal Hollow's coal mining and reclamation operations on cultural resources in the adjacent area, according to the definitions of "Coal Mining and Reclamation Operations" and "adjacent area" provided in this Board's rules.

88. The Division complied with R645-301-411.140 through 411.144 by evaluating impacts on every eligible site where impacts from mining and reclamation could be reasonably expected.

89. The Division's determination of eligibility and effect related to cultural resources included areas outside of the permit area including all of the adjacent area.

90. The Division complied with R645-301-411.144 by providing for mitigation of adverse effects on all eligible sites located in the permit area and adjacent area.

91. The Division's analysis of eligible sites ensured that it considered the impacts to all sites that could reasonably be expected to be impacted by coal mining and reclamation operations.

92. The Board concludes that the Division's determination complied fully with the applicable statutes and regulations and was correct and proper in all respects.

Issue 4. Was the Division required to identify and address the effect of the proposed Coal Hollow Mine on the Panguitch National Historic District before approving the mine permit.

FINDINGS OF FACT

93. The Cultural Resource Management Plan ("CRMP") identified the Panguitch National Historic District ("PNHD") as a cultural resource located on the possible coal haul route.

94. The PNHD comprises an area consisting of most of the land within the City of Panguitch located 35 miles from the Coal Hollow mine and encompasses a variety of buildings, streets, and locations abutting the main route of US Highway 89.

95. Coal transportation from the Coal Hollow mine may occur by truck haulage through the Town of Panguitch on U.S. Highway 89.

96. The Board takes official notice that Highway 89 is a long established public highway built and maintained with public funds by public entities as part of the State of Utah's and the Nation's transportation systems and is the main public truck and vehicle transportation route in this part of the State of Utah.

97. Petitioners presented evidence that some residents of Panguitch were concerned about possible damage to the PNHD as a result of the increased traffic from trucks hauling coal from the mine on Highway 89. The evidence presented did not substantiate these concerns.

98. In any event, coal transportation from the Coal Hollow Mine by truck haulage through the PNHD on U.S. Highway 89 is not a coal mining and reclamation operation as that term is defined in the Utah Coal Mining and Reclamation Act and this Board's rules.

99. The PNHD is not located within the Coal Hollow Mine's adjacent area for cultural resources by virtue of the possibility that it could be impacted by truck traffic hauling coal from the mine.

100. The evidence did not establish that any coal mining and reclamation operation of the Coal Hollow Mine could reasonably be expected to adversely impact the PNHD.

CONCLUSIONS OF LAW

101. Petitioners did not meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

102. The Division is required by the provisions of Utah Code Ann. § 9-8-404 and Utah Admin. Code R645-300-133.600 to take into account the effect of the proposed permit on properties listed on and eligible for listing on the National Register of Historic Places.

103. The coal rules under R645-100-200 govern how the adjacent area for historic and cultural resources potentially affected by a permit for a coal mining operations are to be determined and analyzed.

104. Utah Admin. Code R645-301-411.140 requires a narrative describing the nature of cultural and historic resources listed or eligible for listing in the National Register of Historic Places and known archeological sites within the permit and adjacent areas.

105. Utah Admin. Code R645-100-200 defines adjacent area as "the area outside the permit area where a resource or resources, determined according to the context in which adjacent area is used, are or reasonably could be expected to be adversely impacted by proposed coal mining and reclamation operations."

106. Coal transportation from the Coal Hollow Mine by truck haulage through Panguitch on U.S. Highway 89 is not a coal mining and reclamation operation as that term is defined in the Utah Coal Mining and Reclamation Act and this Board's rules.

107. The PNHD is not located within the Coal Hollow Mine's adjacent area for cultural resources by virtue of the possibility that it could be impacted by truck traffic hauling coal from the mine.

108. The Division's determination that the PNHD was not within the adjacent area for cultural resource protection for the Coal Hollow Mine was reasonable, based on the law (including R645-100-200) and on information presented in the application, and is supported by the weight of the evidence.

109. The Division's determination that it was not reasonable to expect impacts to cultural resources in the PHND from the coal mining and reclamation operations is not contrary to the evidence and was not otherwise arbitrary or capricious.

110. The National Historic Preservation Act ("NHPA") and the rules of the Advisory Council on Historic Preservation at 36 C.F. R. Part 800 do not apply to the Division's decision to approve the permit application. When a state such as Utah has an approved program under the federal Surface Mining Control and Reclamation Act, 30 U.S.C. § 1201, et seq. ("SMCRA"),

granting a permit pursuant to that program is not a federal "undertaking" triggering compliance with the NHPA. Nat'l Min. Assn. v. Fowler, 324 F.3d 752 (D.C. Cir. 2003).

Issue 5. Whether the Division determined that the Fugitive Dust Control Plan for the Coal Hollow Mine met the requirements of the Division's regulations prior to approving the mine permit.

Issue 6. Whether the Division of Air Quality provided the Division of Oil, Gas and Mining an evaluation of the effectiveness of the Fugitive Dust Control Plan for the Coal Hollow Mine prior to the Division's approval of the mine permit.

Issue 7. Whether the Division of Air Quality has provided notice to the Division of Oil, Gas and Mining of receipt of a complete air permit application from ACD for the Coal Hollow Mine.

Issue 8. Whether the Division of Air Quality has provided notice to the Division of Oil, Gas and Mining of approval of an air permit for the Coal Hollow Mine.

Issue 9. Whether the Division was required to wait for the Division of Air Quality's evaluation of the Fugitive Dust Control Plan including the plan's effectiveness in addressing the quality of the night skies before approving the Coal Hollow mine permit.

FINDINGS OF FACT

111. The Coal Hollow Mine is projected to produce more than 1,000,000 tons of coal per year.

112. The permit application contains a Fugitive Dust Control Plan. The Fugitive Dust Control Plan is included in the Mining and Reclamation Plan as Appendix 4-5.

113. The Division's expert concluded that the dust control practices described in the Fugitive Dust Control Plan comply with the requirements of Utah Admin. Code R645-301-244.100 and 244.300. The weight of the evidence supports the Division's finding in this regard.

114. The evidence did not establish that the fugitive dust control plan and practices at issue fail to adequately protect against impacts to night sky clarity. The Division presented evidence that its soil scientist reviewed the proposed dust control procedures and found them to

be adequate. Petitioners presented no evidence demonstrating the inadequacy of those practices for any purpose. Accordingly, the Board finds that the dust control practices, as proposed in the Fugitive Dust Control Plan, adequately protect against air pollution resulting from fugitive dust emissions.

115. The permit application contains a proposed air quality monitoring program designed to collect data to evaluate the effectiveness of the fugitive dust control practices in the Fugitive Dust Control Plan. The monitoring program contemplates the use of EPA Method 9.

116. The evidence did not establish any inadequacy with the monitoring program, and did not establish that the monitoring program would provide insufficient data to evaluate the effectiveness of the fugitive dust control practices in compliance with applicable regulations. The limited evidence presented at the hearing regarding the efficacy of Method 9 tended to support its suitability as a monitoring method for the Alton Fugitive Dust Control Plan.

117. The Division approved the Coal Hollow Mine permit with a condition that ACD obtain Utah Division of Air Quality ("DAQ") approval of the monitoring plan in conjunction with DAQ's determination to grant or deny an Air Quality Approval Order.

118. The Board finds that including this condition was a reasonable and proper means of assuring that the monitoring plan would produce sufficient data to determine the effectiveness of dust control measures and satisfies the requirements of the state and federal air quality laws.

119. The dust monitoring plan, as conditioned, will produce sufficient data to evaluate the effectiveness of control measures set forth in the Fugitive Dust Control Plan.

120. After the final hearings in this matter, the Board asked the parties to update the Board on DAQ's review and to explain how any potential challenge to the approval or denial of the air quality permit and the proposed monitoring program would be decided.

121. At the time of the Board's request for additional information, DAQ had reviewed and accepted the Fugitive Dust Control Plan including the proposed fugitive dust control practices and the proposed air quality monitoring program (including the use of EPA Method 9). At the time of the Board's request, the Air Quality Approval Order remained under consideration pending the review of air dispersion modeling.

122. The Air Quality Approval Order will be subject to a thirty-day public comment period, and review of the order may be had before the Utah Air Quality Board.

123. As noted above, regardless of the present status of DAQ's review and approval of EPA Method 9 as a monitoring method, the Board finds that the Division's conditioning of the permit on the operator obtaining DAQ approval of the monitoring method prior to mining was a reasonable and proper means of ensuring that the monitoring method meets the requirements of the regulations.

124. The only credible evidence shows that, to the extent that impacts to night sky clarity are embraced by the subject regulations, the Coal Hollow mining operations as approved will not result in adverse impacts on the clarity of the night sky.

CONCLUSIONS OF LAW

125. Petitioners have failed to meet their burden of proving any error in the Division's approval of the permit with regard to this issue.

126. The Division properly evaluated and determined that the fugitive dust control plan, and the air quality monitoring program, as conditioned, comply with applicable coal mining regulations related to air quality, found at Utah Admin. Code R645-301-420, -421, -422, -423, -423.100, and -423.200.

127. The fugitive dust control practices described in the Fugitive Dust Control Plan comply with applicable coal mining regulations, including Utah Admin. Code R645-301-244.100 and -244.300.

128. The provisions of R645-301-421 and 301-423.100 require and the mine permit was properly conditioned upon issuance of an Air Quality Approval Order by the Utah Division of Air Quality.

129. By conditioning the mine permit approval upon issuance of the Air Quality Approval Order, the Division has ensured compliance with Utah Admin. Code R645-301-423.100.

130. An approved Air Quality Approval Order issued by DAQ will confirm that the air quality monitoring program, including the use of EPA Method 9, complies with Utah Admin. Code R645-301-423.100.

131. The Board concludes that the Permit Application contained sufficient information regarding fugitive dust control and monitoring to comply with Utah Code § 40-10-11(2)(a) and that the Division reached its decision regarding dust control on the basis of a complete and accurate application.

132. The Division appropriately approved the permit in advance of the Division of Air Quality's Approval Order in light of the condition imposed on the mine permit requiring issuance of the Air Quality Approval Order prior to commencing mining operations.

133. The applicable regulations at Utah Admin. Code R645-301-420 et seq. pertaining to air quality requirements for a permit mandate that the operator comply with fugitive dust control practices and provide a monitoring program approved by DAQ to comply with the requirements of the Clean Air Act and other applicable state and federal regulations, but these regulations do not require any evaluation or set any standards specific to the impacts of fugitive dust on the clarity of the night sky in particular.

134. To the extent that Petitioners' concern regarding impacts on night sky is related to fugitive dust, the Board concludes that the Fugitive Dust Control Plan adequately addresses that concern to the full extent of the Division's and Board's jurisdiction. To the extent that Petitioners' concern regarding the night sky is related to impacts other than fugitive dust, the Board concludes that the Division and the Board are without authority to regulate those impacts through Alton's surface coal mining and reclamation permit.

135. The Board concludes that the Division's determination that the permit application complied fully with the applicable statues and regulations was correct and proper in all respects.

ISSUE 10: Whether the Division's Cumulative Hydrologic Impact Assessment ("CHIA") for the Coal Hollow Mine unlawfully fails to establish at least one material damage criterion for each water quality or quantity characteristic that the Division requires ACD to monitor during the operations and reclamation period.

ISSUE 11: Whether the Division's cumulative hydrologic impact assessment for the Coal Hollow Mine unlawfully fails to designate the applicable Utah water quality standard for total dissolved solids (a maximum concentration of 1,200 milligrams per liter) as the material damage criterion for surface water outside the permit area.

FINDINGS OF FACT

136. Prior to approving the Permit, the Division prepared a Cumulative Hydrologic Impact Assessment ("CHIA") for the Coal Hollow Mine.

137. The CHIA adequately analyzed the hydrologic effects of the Coal Hollow Mine in light of all anticipated mining in the area.

138. The CHIA concluded that the mine was designed to prevent material damage to the hydrologic balance outside the permit area.

139. The CHIA did not establish a material damage criterion for each water quality parameter that the Division requires Alton to monitor during mining operations.

140. The CHIA identified 3000 milligrams per liter (mg/L) of Total Dissolved Solids ("TDS") in receiving waterbodies as the level beyond which material damage could occur to surface water quality outside the permit area. The evidence supports setting the value at this level.

141. Evidence in the record demonstrates that pre-mining levels of TDS in reaches of potentially-affected streams often exceed 1200 mg/L and can reach or exceed 3000 mg/L.

142. The Division explained that, in its judgment, setting a material damage criterion at 1200 mg/L TDS would make it impossible to discriminate between normal background levels and possible effects of mining.

143. Kanab Creek is a receiving waterbody under the Mine's UPDES permit, although the Mine is designed to prevent any discharge from leaving the site and reaching Kanab Creek. The Utah water quality standard for waters such as Kanab Creek is 1200 mg/L TDS.

144. The CHIA identified 3000 mg/L of TDS in springs or other groundwater discharges as the value that would indicate that an evaluation of whether the mine was causing material damage to groundwater quality outside the permit area should be undertaken. The evidence supports setting the value at this level.

145. In its Permit Application, Alton provided a Statement of Probable Hydrologic Consequences ("SPHC") that identified the probable adverse effects to the hydrologic balance in the permit and adjacent areas. The determination of probable hydrologic consequences ("PHCs") was made based on baseline hydrologic monitoring and field investigations and is supported by the weight of the evidence.

146. The Division's CHIA was based on the applicant's SPHC and the application of the professional judgment of the Division's experts to the specific and unique hydrologic and geologic conditions where the mine is proposed.

147. The mine's design included adequate measures to address the offsite effects of each of the PHCs.

148. Alton's expert witness, Erik Petersen, testified that he advised Alton of the probable hydrologic consequences of mining, participated in designing measures to prevent these consequences, and was satisfied that the mine, as designed, would prevent material damage to the hydrologic balance outside the permit area.

149. The testimony of Petitioner's expert witness, Charles Norris, was not as valuable to the Board because he did not review the mine's design and had no criticism of the design's effectiveness at preventing material damage to the hydrologic balance.

150. The Board views the witnesses of the Division and Alton to be more credible overall on this subject than Petitioners' witness and finds that at most the testimony of Petitioners' expert establishes a mere difference of opinion on an issue involving substantial technical analysis.

151. The Division's experts evidenced substantial knowledge, expertise and experience in hydrology and the evaluation of material damage for the CHIA.

152. The Coal Hollow Mine was designed to be a no-discharge facility, meaning that under foreseeable conditions, all mine waters and runoff would be captured on the site.

153. An increase in TDS concentrations in runoff from the mine site is improbable.

154. Notwithstanding the mine's zero-discharge design, a permit was issued under the UPDES system for point-source discharges to Lower Robinson Creek and Sink Valley Wash in the unlikely event that impoundments on the mine site were unable to contain runoff.

155. Any discharges from these points must not exceed applicable state water quality standards for the receiving water body.

156. The Coal Hollow Mine was designed to prevent material damage to the hydrologic balance outside the permit area.

157. Petitioners' evidence at hearing failed to prove that the design of the Coal Hollow Mine would not prevent material damage to the hydrologic balance outside the permit area.

158. The evaluation of material damage criteria in a CHIA involves a substantial degree of professional judgment and knowledge concerning hydrology, coal mining design and operations and applicable regulations. The Division's approach was generally consistent with

draft Guidelines prepared by the Federal office of Surface Mining Control and Reclamation. While application of some deference to the Division would be appropriate on this technical issue if the evidence presented a close call, the Board finds that the weight of the evidence supports the Division's findings and actions on this issue without any deference being necessary.

CONCLUSIONS OF LAW

159. Petitioners have failed to meet their burden of proving any error in the Division's approval of the permit application with regard to this issue.

160. The Division is required, as part of its review of the permit application, to prepare a CHIA to evaluate the impact of the mine on the hydrologic balance in light of all anticipated mining in the area. Utah Code § 40-10-11(2)(c).

161. Evaluation of hydrologic impacts in the CHIA is based on the statement of probable hydrologic consequences prepared by the applicant as part of its permit application, together with baseline hydrologic data and any additional information the Division may possess and find relevant. Utah Code § 40-10-10(2)(c)(i)(C).

162. In connection with this effort, the Division is to make a finding as to whether the proposed mine has been designed to prevent material damage to the hydrologic balance outside the permit area. Utah Code § 40-10-11(2)(c).

163. The Division made the required finding related to material damage.

164. The finding was made on the basis of a complete and accurate application.

165. The Board concludes that the CHIA prepared by the Division was adequate and that it made a sound scientific and technical judgment that the mine was designed to prevent

material damage to the hydrologic balance outside the permit area in light of the probable hydrologic consequences of mining.

166. No provision of the controlling statute or regulations requires designation of specific numeric values to define material damage criteria in the CHIA for each water quality or quantity parameter that will be monitored by the operator.

167. The Board does not construe any provision of its rules to require explicitly designating numeric material damage criteria in the CHIA.

168. Although Utah water quality standards are important and enforceable performance standards for discharges from the proposed project, the controlling statute and regulations do not mandate that these standards be employed as material damage criteria in the CHIA.

169. The Board concludes that the Division was not bound to establish the Utah water quality standard of 1,200 mg/L of TDS as a material damage criterion.

170. The Division's actions were consistent with the instruction in the federal Office of Surface Mining's 1985 OSM Draft Guidelines, and although the Guidelines are not legally-binding standards for the preparation of CHIA's in Utah under the Utah Administrative Rulemaking Act, Utah Code § 63G-3-101, they are useful in demonstrating the Division's CHIA determinations complied with those recommendations.

171. The Board concludes that the Division's decision is supported by the weight of the evidence and also concludes that it was not otherwise arbitrary and capricious because it has adequately explained its reasons for the choices made in its CHIA, and those reasons set forth a

rational and proper basis for the evaluation of potential material damage from the mining operations.

172. Although the Board finds that the Division's actions with respect to the CHIA are supported by the weight of the evidence, the Board notes, as it did in its order regarding the standard and scope of review, that the Division is entitled to rely on the expertise of its technical staff on issues involving substantial technical and scientific analysis. The Board notes that preparation of the CHIA involves such analysis.

173. As noted above, the Board found the testimony of the Division's and ACD's experts to be more credible overall than the testimony of the Petitioner's expert, and the weight of the expert testimony therefore favors the Division's actions on this issue. Even if it were viewed more favorably, the evidence provided by Petitioners' expert on this subject would at most demonstrate a mere difference of opinion regarding how the Division should incorporate water quality standards into its CHIA analysis. This evidence does not demonstrate error on the Division's part and does not warrant reversal or remand of the Division's approval of the permit application.

174. The Board concludes that the Division, in its CHIA analysis of potential material damage to the hydrologic balance, exercised its scientific and technical judgment properly and well within the bounds of reasonableness and rationality. Based on this conclusion and for the reasons set forth above concerning the weight of the evidence, the Board declines to disturb the Division's judgment and actions on this subject.

175. The Board concludes that the Division's determination that the permit application complied with the Utah coal regulations related to material damage criteria and related to the TDS criteria was correct and proper in all respects.

ISSUE 12: Whether ACD's hydrologic monitoring plans are unlawfully incomplete because they fail to describe how the monitoring data that ACD will collect may be used to determine the impacts of the Coal Hollow Mine upon the hydrologic balance.

FINDINGS OF FACT

176. The Coal Hollow MRP includes unambiguous statements about which explicitly-defined hydrologic features are to be monitored at each monitoring location.

177. The monitoring plan clearly defines the monitoring protocols to be used at each monitoring site (i.e., which flow, water level, and water quality parameters are to be analyzed).

178. The basis for monitoring each of the hydrologic features, and any potential impacts that may occur to these features as a result of mining, are clearly spelled out in the SPHC, which is a companion document to the monitoring plan.

179. The controlling regulations require the monitoring data to be submitted every three months and specify that when an analysis of the data indicates noncompliance with permit conditions the operator shall promptly notify the Division and immediately take the actions required by the regulations and the operating plan.

180. The Board finds that the provisions of the monitoring plans and related documents, both on their own and when read in conjunction with the regulations, address and adequately disclose how the monitoring data may be used.

181. Information and examples illustrating how to use and interpret the monitoring data to detect mining-related impacts are provided throughout the Coal Hollow Mine MRP. These interpretive techniques and tools include water quality analysis using Stiff diagrams, other graphical techniques specifically used for detection of down-gradient degradation in water quality, analysis of water quantity impacts using the Palmer Hydrologic Drought Index, detailed reaction chemistry for surface and groundwater, identification of which parameters might be expected to change if water adversely interacts with the Tropic Shale, and other data analysis tools.

CONCLUSIONS OF LAW

182. Petitioners have failed to meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

183. This Board's rules require that a permit application must include monitoring plans for surface water and groundwater. R645-301-731.211, 731.221. The plans must describe how the monitoring data will be used to determine the impacts of the operation on the hydrologic balance. Id. The rules do not indicate the level of detail an applicant must supply to comply with this requirement.

184. Even if Save Our Cumberland Mountains v. Office of Surface Mining, No. 97-3-PR (Dept. of the Interior, Office of Hearings & Appeals, July 30, 1998) (construing a parallel rule under the permanent Federal Program rather than the Utah Coal Rules) were to be treated by the Board as persuasive authority on this question, Alton's monitoring plan and companion documents exceed the amount of information that the ALJ in that case found to be insufficient.

Therefore, application of the ALJ's analysis to the facts of this case would not warrant reversal of the Division's decision.

185. The Board concludes that the hydrologic monitoring plans, both on their own as well as when read in conjunction with other information contained elsewhere within the overall Mining and Reclamation Plan ("MRP"), adequately describe how the monitoring data gathered may be used to determine the impacts of the mining operations on the hydrologic balance.

186. The Board concludes that no violation of R645-301-731 was demonstrated by the evidence presented at hearing, and that the Division reached its decision on the basis of a complete and accurate application. The Board therefore affirms the Division's findings on this issue.

187. The Board concludes that the Division's determination that the permit application complies with the Utah coal regulations related to information required to be included in hydrologic monitoring plans was correct and proper in all respects.

188. Board member Payne did not vote with the majority on this issue. His minority opinion is more fully set forth in the Board's August 3, 2010 Interim Order Concerning Disposition of Claims.[8]

ISSUE 13: Whether ACD's hydrologic operating plan is unlawfully incomplete because it fails to include remedial measures that ACD proposes to take if monitoring data show trends toward one or more material damage criteria.

[8] Unless otherwise specifically noted, the Board's decision on all issues in this matter was unanimous.

FINDINGS OF FACT

189. Rising TDS levels as a result of mining activities at Coal Hollow are an unlikely result of mining activity.

190. The Division and ACD presented evidence of preventative and remedial measures within the Mining and Reclamation Plan ("MRP") and the Board finds in general that such measures have been included as required by the rules.

191. The MRP includes preventive and remedial measures to address each of the probable hydrologic consequences of the Mine.

192. In many instances, the same measure can be either or both preventative and remedial.

193. Although the probability of rising TDS levels is low, the Board finds that the MRP, including its hydrologic operating plan, does identify measures which are both preventative and remedial to address potential increases in TDS.

194. The observation of trends may be helpful to guide the Division in evaluating the Mine's potential to affect the hydrologic balance, but remedial action is not mandated in response to trends and is properly left to the discretion of the Division.

CONCLUSIONS OF LAW

195. Petitioners have failed to meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

196. As a general requirement, this Board's rules provide that a monitoring plan must "address any potential adverse hydrologic consequences identified in the PHC determination" and "include preventative and remedial measures." Utah Admin Code R645-301-731.

197. While R645-301-731 requires the inclusion of both preventative and remedial measures in general, it does not specify the degree to which each type of measure must be included in the plan under differing circumstances and such determinations are within the discretion of the Division. The Division has expertise in this technical area and may exercise discretion as to the degree to which an applicant must include remedial measures when a particular potential hydrologic consequence has been judged to be improbable due to site conditions and/or the effectiveness of the specified preventative measures. In any event, as noted above, the Board finds based on the weight of the evidence that the MRP does include both preventative and remedial measures.

198. Rising TDS levels were not among the PHCs identified by the applicant and evidence presented to the Board did not demonstrate that rising TDS levels should have been identified as a PHC. R645-301-731 does not require preventative and remedial measures for adverse hydrologic consequences that are not included in the PHC determination prepared under R645-301-728.

199. The rules do not require that a plan must include remedial measures that are triggered by trends toward material damage criteria.

200. The Board concludes that no violation of R645-301-731 was demonstrated by the evidence presented at hearing, and that the Division reached its decision on the basis of a

complete and accurate application. The Board therefore affirms the Division's findings on this issue.

201. Board member Payne concurred with the decision of the remainder of the Board on this issue; however, he disagreed with the remainder of the Board's finding that the MRP does include remedial measures. His opinion is more fully set forth in the Board's August 3, 2010 Interim Order Concerning Disposition of Claims.

ISSUE 14: Whether ACD's geologic information is unlawfully incomplete because ACD failed to drill deeply enough to identify the first aquifer below the Smirl coal seam that may be adversely affected by mining.

FINDINGS OF FACT

202. The permit application contains a description of the geology of the permit and adjacent area down to and including the stratum immediately below the coal seam. This description is based on published geological literature, cross-sections, maps, and plans prepared by the applicant, and analysis of samples collected from test borings.

203. Alton collected and adequately analyzed samples for the potential of acid and toxic forming materials both above and below the coal seam, and included that information in its permit application.

204. Alton conducted a drilling program and collected cuttings and cores from locations within the project area including bore holes into the stratum immediately below the coal seam. Alton drilled boreholes into the Dakota Formation immediately below the coal seam, which provides information concerning the stratum underlying that seam.

205. Alton's expert examined fresh unweathered samples from rock outcrops, in addition to other evidence, in investigating and analyzing geology down to and including the stratum below the coal-seam.

206. The Division found this information adequate to meet geologic resource information requirements. The evidence supports the Division's finding in this regard.

207. The preponderance of evidence in the record supports the Division's finding that there is no aquifer below the Smirl coal seam which is likely to be affected by mining operations. Evidence adduced at the hearing did not establish the existence of such an aquifer.

208. The inquiry concerning potential aquifers below the coal seam involves substantial professional and technical judgment.

209. The testimony of Petitioners' expert on this subject, Elliott Lips, establishes at most a mere difference of opinion with the experts of the Division and ACD as to what that inquiry requires.

210. The Board finds that both the Division's witness, April Abate, and Alton's expert witness, Erik Petersen, provided more reliable and credible testimony regarding water resources in the Dakota Formation than Petitioner's expert. The weight of the expert testimony therefore favored the Division's actions with respect to this issue.

211. The Board did not find the deposition testimony of Division hydrologist, James Smith, offered into evidence by Petitioners, to be helpful in resolving this issue, and finds no

reason to credit the deposition testimony with equivalent weight to the live testimony of either April Abate or Erik Petersen.[9]

CONCLUSIONS OF LAW

212. Petitioners have failed to meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

213. The Utah Coal Mining and Reclamation Act ("UCMRA") requires that the applicant provide "chemical analyses of the stratum lying immediately underneath the coal to be mined." Utah Code § 40-10-10(2)(d)(i)(F).

214. This Board's rules require samples to be collected and analyzed from the deeper of either "the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam which may be adversely affected by mining." Utah Admin. Code R645-301-624.200 (2009). The rules also provide that "unweathered, uncontaminated samples from rock outcrops" may be examined as an alternative to test borings. Id.

215. Accordingly, if no aquifer exists below the coal seam in a position or under conditions where it may be adversely affected by mining, the required sampling and chemical analysis need not include stratum deeper than the stratum immediately below the coal seam.

216. Petitioners did not demonstrate that required sampling and analysis of strata below the coal seam was omitted.

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[9] The Board placed little weight on this deposition excerpt for similar reasons to those noted in footnote 7, above. The Board notes that the testimony concerning Exhibit 8 referenced in the deposition was of little probative value given that no real foundation or explanation pertaining to that exhibit was provided.

217. Petitioners did not prove that any required geologic information was omitted from the permit application regarding the coal seam or any higher stratum.

218. Petitioners did not prove that an aquifer exists at any depth below the coal seam where it might be affected by mining.

219. The Board concludes that the sampling and analysis requirements of Utah Code § 40-10-10(2)(d)(i)(F) and R645-301-624.100 and 624.200 were satisfied.

220. Petitioners did not demonstrate a violation of R645-301-624.210.

221. The Board concludes that no violation of the applicable statute and rules is demonstrated by the Division's decision not to require drilling into the Dakota Formation deeper than the immediately-lower-lying stratum sampled and analyzed by Alton.

222. Evidence in the record amply shows that the Division exercised its technical judgment based on adequate information and data supplied by the applicant.

223. The evidence presented does not demonstrate a violation of Utah Code § 40-10-11(2)(a) (requiring a complete and accurate permit application) by declining to require deeper drilling or otherwise provide further results of an investigation into the possibility of an affected aquifer in the Dakota Formation. Information in the Permit Application sufficiently sets forth a rational and proper basis for the technical judgments made. Additionally, the weight of the evidence supports the Division's actions.

224. The Board concludes that the Division's determination that the permit application complies with the Utah coal regulations related to drilling into, and otherwise investigating, the

stratum immediately below the coal seam or the first aquifer below the coal seam that may be adversely affected was correct and proper in all respects.

ISSUE 15: Whether ACD's hydrologic monitoring plans are unlawfully incomplete because they fail to establish monitoring stations:

(a) for surface water on Lower Robinson Creek immediately upgradient of the permit area; and

(b) for both surface and alluvial ground water in or adjacent to Lower Robinson Creek, immediately downgradient of the most downgradient discharge point from the seeps or springs that ACD and the Division have observed between monitoring points SW-101 and SW-5.

ISSUE 16: Whether ACD's baseline hydrologic data are unlawfully incomplete in one or more of the following respects:

(a) the data do not include even one flow rate or water quality entry during the data collection period at monitoring stations that ACD should have established on Lower Robinson Creek immediately upgradient of the permit area, and thus the data do not demonstrate seasonal variation at that location;

(b) the data do not include even one flow rate or water quality entry during the data collection period at a monitoring station that ACD should have established on Lower Robinson Creek immediately downgradient of the most downgradient discharge point from seeps and springs that ACD and the Division have observed between monitoring points SW-101 and SW-5, and thus the data do not demonstrate seasonal variation at that location; and

(c) none of the water quality data are verified by complete laboratory reports that establish an appropriate chain of custody and identify the sampling protocols that governed collection of each water sample.

FINDINGS OF FACT

225. Petitioners elected to abandon and not present any evidence regarding Issue 16(c). Accordingly, the Board finds that no evidence in the record establishes failure to observe any required custody procedures or sampling protocols.

226. At the hearing, Petitioners chose not to pursue claims 15 and 16 as they were articulated in their statement of issues alleging failure to demonstrate seasonal variation in water quantity and quality. Accordingly, the Board finds that no evidence presented at hearing

established a deficiency in the baseline monitoring data related to its suitability for evaluating seasonal variations.

227. The expert witness for ACD opined that the sites chosen for the monitoring stations allowed those stations to perform their function under the regulations and were selected based on the topographic and hydrologic characteristics of the locations relative to the location of mining operations and the hydrologic system outside of the permit area.

228. The locations of the monitoring sites were selected based on substantial prior investigations, review of the monitoring data, and a comprehensive examination of the hydrologic systems within the permit and adjacent area. They were chosen to demonstrate and determine the effect of mining operations on the surface and ground water systems and to monitor those effects so as to prevent material damage to the hydrologic balance outside of the permit area. The weight of the evidence demonstrates the appropriateness of the locations chosen for the monitoring stations.

229. The evidence establishes that the Division in its exercise of technical judgment approved the monitoring locations chosen.

230. The evidence supports the Division's determination that the monitoring plans are sufficient to detect material damage to the hydrologic balance outside of the permit area.

231. The absence of monitoring stations located at the exact spot of the upstream permit boundary and at the downstream extent of the bank seepage did not compromise Alton's ability to describe seasonal variation or detect material damage to the hydrologic balance.

232. The location of the downstream monitoring stations did not present a substantial risk of distortion in the data and the likelihood of gaining greater insight from stations at the exact permit boundaries is minimal.

233. Lower Robinson Creek is an ephemeral stream in its reach upstream of the permit area, and an intermittent stream at or below the permit area.

234. The "area of bank seepage" or seeps and springs on Lower Robinson Creek is adequately monitored in the baseline data and operational monitoring plan.

235. The selection of monitoring locations implicates the exercise of substantial scientific and technical judgment.

236. Significant scientific and technical judgment is implicated by the requirement to describe groundwater resources.

237. Monitoring for adverse impacts to the hydrologic balance outside of the permit area requires expertise and professional judgment concerning the locations chosen for monitoring in Lower Robinson Creek.

238. The testimony of Petitioners' expert on this issue evidences a difference of professional and technical opinion with the Division as to the locations of these monitoring stations.

239. Mr. Petersen's extensive experience over five years of observations and data collection activities at the mine site renders his opinion on the subject more persuasive than Mr.

Lips, who spent one day examining Lower Robinson Creek, took no samples, and made only crude flow measurements.

240. Each of the alleged deficiencies in the monitoring plan arising from location of monitoring stations was refuted by the testimony of Mr. Petersen.

241. The Board found the experts of ACD and the Division to be more reliable and credible than the Petitioners' expert with respect to this issue.

242. The Board was more persuaded by Mr. Smith and Mr. Petersen than by Mr. Lips and the weight of the expert testimony therefore favors the Division's actions on this issue. Even if it were viewed more favorably, the evidence provided by Petitioners' expert on this subject would at most demonstrate a mere difference of expert opinion with respect to this issue and would not be sufficient to demonstrate error on the Division's part.

243. The evidence presented at the hearing and in the record provides adequate technical basis for and supports the appropriateness of the locations of sampling stations with respect to the hydrology in and around Lower Robinson Creek.

CONCLUSIONS OF LAW

244. Petitioners have failed to meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

245. The Board concludes that Petitioners waived Issue 16(c). The Division's decision is affirmed on that point.

246. The Board's rules for collection of baseline hydrologic data for surface water require specific quantity measurements and chemical analyses, in an amount sufficient to demonstrate "seasonal variation." R645-301-724.200.

247. This Board's rule for baseline groundwater information is similar, requiring collection of information on "seasonal quality and quantity." R645-301-724.100.

248. No rule provides specific criteria for choosing the locations where the baseline data should be collected.

249. This Board's rules for the collection of operational monitoring data (i.e. data collected according to the monitoring plan after mining operations begin) for both surface water and groundwater require monitoring of specified parameters related to (1) the PHCs identified by the applicant, (2) the current and approved postmining land uses, and (3) the objectives for protection of the hydrologic balance set forth elsewhere in the Rules. R645-301-731.211, 731.221.

250. No rule provides specific criteria for choosing the locations where the operational monitoring data should be collected.

251. Petitioners did not prove that the baseline data collected on Lower Robinson Creek are insufficient to allow description of seasonal variation in water quality or quantity.

252. Petitioners did not prove that the operational monitoring data to be collected on Lower Robinson Creek during mining and reclamation will be insufficient to meet the objectives of the rules.

253. R645-301-724.100 requiring collection of location and ownership information for seeps and springs, and collection of seasonal quality and quantity data for groundwater, does not compel an applicant to collect quantity and quality data at every seep or spring within the permit and adjacent areas.

254. R645-301-731 sets forth general requirements for the operations plan but does not address placement of either baseline or operational monitoring stations.

255. R645-301-750 sets forth hydrologic performance standards but does not address placement of either baseline or operational monitoring stations.

256. The Board concludes that the standards for protection of the hydrologic balance on and off the permit area do not necessarily require placement of monitoring stations at the permit area boundaries.

257. The evidence did not demonstrate a violation of this Board's rules governing collection of baseline hydrologic data.

258. The evidence did not demonstrate a violation of this Board's rules governing hydrologic monitoring plans.

259. The Board concludes in light of the testimony of Alton's and the Division's experts and other evidence presented that the operational monitoring plan complies with R645-301-731.211 and 731.221 because it incorporates parameters that will adequately provide for detection and measurement of the identified PHCs, possible effects to current and postmining land uses, or protection of the hydrologic balance.

260. The baseline monitoring data submitted by Alton adequately describes the quality and quantity of groundwater in the permit and adjacent areas, including seasonal variations in quality and quantity.

261. The Board finds no violation of R645-301-731 or 750 in Alton's selection of baseline and operational monitoring sites on Lower Robinson Creek. The weight of the evidence supports the appropriateness of the sites chosen, and the Division and Alton presented a reasonable and proper basis for the selection of monitoring sites.

262. It is insufficient to prove error by producing evidence that another suite of data collection times, methods, and locations might have produced a different, or even more detailed, description of the resource. Petitioners did not prove that Alton's methods fell short of the controlling legal standards identified above.

263. The Board concludes that the Division's determination that the permit application complies with the Utah coal regulations related to the siting of baseline and operational hydrologic monitoring stations was correct and proper in all respects.

ISSUE 17: Whether the Division's determination that Sink Valley does not contain an alluvial valley floor is arbitrary, capricious, or otherwise inconsistent with applicable law.

FINDINGS OF FACT

264. The permit area and adjacent area occupy a portion of Sink Valley located north of Kane County Road #136. These lands do not consist of unconsolidated streamlaid deposits holding streams.

265. The topography of these portions of Sink Valley that include the permit and adjacent areas is devoid of a meandering stream that deposited sediment and other typical features of Alluvial Valley Floors ("AVFs") such as floodplains and terraces.

266. The surface morphology of Sink Valley in the permit and adjacent areas is consistent with an alluvial fan or fans and not consistent with the features of an AVF.

267. Sink Valley in and adjacent to the permit area is an upland area consisting of one or more alluvial fans.

268. A floodplain and terrace complex typical of an AVF is absent in this area.

269. Sink Valley Wash north of County Road #136 consists of fragments of an ephemeral stream channel that frequently disappears altogether.

270. Sink Valley Wash within Sink Valley is an erosional drainage feature and not a depositional stream associated with an AVF.

271. The Division's files include previous AVF investigations of a larger area beyond the permit area and adjacent area of the Coal Hollow Mine that included Sink Valley and the Alton Coal Field area.

272. The Division found, and the evidence shows, that the Coal Hollow application was factually distinct in material ways from the prior determinations, and that the application presented new information that supported a different finding.

273. The Division concluded that the regulations required specific factual determinations regarding the existence of geomorphic features required by the definition of an

AVF and uplands that were not considered in the prior determinations. The Division made additional geomorphologic investigations including site inspections to determine if the lands in question satisfied the definitions of an AVF.

274. The Division made hydrologic and geologic investigations and analysis necessary to make the eventual AVF finding that included all of the information from ACD's application, information from the Division's prior determinations and information from OSM.

275. The Division's AVF analysis was consistent with OSM's guidelines for Alluvial Valley Floor investigations.

276. Analysis of the hydrologic and geomorphologic features relevant to the AVF determination implicates a high degree of scientific and technical judgment. The Division appropriately exercised its scientific and technical judgment within reasonable and rational bounds in reaching its negative AVF determination, and the weight of the evidence supports the Division's determination.

277. While there was disagreement among the parties' expert witnesses in interpreting the geologic evidence, the Board found the Petitioners' expert to be less credible on this issue than those of the Division and ACD based upon background and experience. The weight of the expert testimony therefore favored the Division's determination on this issue.

278. The Division's conclusion that the area of Sink Valley at issue consisted of uplands that are excluded from the definition of an AVF was based on sound scientific and technical analysis and is supported by the weight of the evidence. Petitioners' evidence at hearing provided no persuasive reason to disturb the Division's conclusions.

279. The Board finds that the Division fully and conscientiously considered its previous determinations related to an AVF in Sink Valley, and to the extent that the present decision deviates from that former determination, the Division has set forth a reasonable and proper technical and scientific basis for that deviation.

280. The preponderance of evidence presented to the Board supports the Division's determination that no AVF exists in Sink Valley within the permit area or the adjacent area.

CONCLUSIONS OF LAW

281. Petitioners have failed to meet their burden of proving any error with the Division's approval of the permit with regard to this issue.

282. In order to approve a permit application, the Division must find in writing subject to certain limited exceptions that the proposed mining operations will not "interrupt, discontinue, or preclude farming on alluvial valley floors that are irrigated or naturally subirrigated." Utah Code § 40-10-11(2)(d)(i).

283. Both the UCMRA and this Board's rules define an AVF to mean "the unconsolidated stream-laid deposits holding streams with water availability sufficient for subirrigation or flood irrigation agricultural activities, but does not include upland areas which are generally overlain by a thin veneer of colluvial deposits composed chiefly of debris from sheet erosion, deposits formed by unconcentrated runoff or slope wash, together with talus, or other mass-movement accumulations, and windblown deposits." Utah Code § 40-10-3(2); Utah Admin. Code R645-100-200.

284. This Board's rules define "Upland Areas" in the context of AVFs, to mean "those geomorphic features located outside the floodplain and terrace complex such as isolated higher terraces, alluvial fans, pediment surfaces, landslide deposits, and surfaces covered with residuum, mud flows, or debris flows, as well as highland areas underlain by bedrock and covered by residual weathered material or debris deposited by sheetwash, rillwash, or windblown material." R645-100-200.

285. This Board's rules specify the process the Division and applicant shall follow to determine the presence or absence of an AVF. If the applicant does not identify an AVF in its application, the Division must determine the presence or absence of an AVF based upon a detailed investigation, including possible follow-up studies. R645-302-321.100 – 321.300. Upon review of all information, "The Division will determine that an alluvial valley floor exists if it finds that: [u]nconsolidated streamlaid deposits holding streams are present; and [t]here is sufficient water to support agricultural activities. . . ." R645-302-321.300–321.320.

286. The Board interprets its rules to mean that the presence of upland areas is relevant to the AVF determination, and the Division did not err in determining that the upland areas of Sink Valley could not be an AVF.

287. The more specific language of the statutory and regulatory definition of AVF at R645-100-200, which excludes upland areas, controls the more general provisions of R645-302-321.300 et seq., which references two criteria also mentioned in the definition, but omits the exception for upland areas. The Division did not err in applying the definition's exclusion of upland areas when it made the determination required by R645-302-321.300.

288. Reading R645-302-321.300 et seq in harmony with the regulatory definition and the preceding subsection (R645-302-321.200–321.260, describing specific geologic, topographic, historic, and geologic information to be gathered by the applicant in its AVF investigation) compels the conclusion that the AVF determination entails a broader inquiry including consideration of whether the upland area exception applies. The Board finds no basis for mapping and describing floodplains and terraces, as required by the above rules, if the existence of such features is irrelevant to the final AVF determination.

289. The definition of upland areas as "geomorphic features outside the floodplain and terrace complex" means that a floodplain and terrace complex is an essential feature of an AVF and its absence is persuasive evidence that no AVF exists.

290. The preponderance of the evidence supports the Division's conclusion that no AVF exists in Sink Valley in the permit area or adjacent area.

291. The Board concludes that the Division did not act arbitrarily or capriciously in its treatment of prior decisions regarding possible AVFs in the same area. To the contrary, the Division conscientiously and thoroughly reviewed the prior decisions, and articulated sound and proper reasons for reaching a different decision in this matter. In any event, the weight of the evidence supports the Division's final determination on this issue.

292. The Board concludes that the Division's determination that the permit application complies with the Utah coal regulations related to its AVF determination was correct and proper in all respects.

ORDER

293. Consistent with the foregoing Findings of Fact and Conclusions of Law, the Board confirms the decision of the Division in this matter and grants the Coal Hollow Mine Permit.

294. Each of the issues, deficiencies and claims of error identified by Petitioners in their pleadings is denied.

295. The Board has considered and decided this matter as a formal adjudication, pursuant to the Utah Administrative Procedures Act, Utah Code Ann. §§ 63G–4–204 through 208, and the Rules of Practice and Procedure before the Board of Oil, Gas and Mining, Utah Admin. Code R641.

296. This Findings of Fact, Conclusions of Law, and Order ("**Order**") is based exclusively upon evidence of record in this proceeding or on facts officially noted, and constitutes the signed written order stating the Board's decision and the reasons for the decision, as required by the Utah Administrative Procedures Act, Utah Code Ann. § 63G–4–208, and the Rules of Practice and Procedure before the Board of Oil, Gas and Mining, Utah Admin. Code R641–109; and constitutes a final agency action as defined in the Utah Administrative Procedures Act and Board rules.

297. **Notice of Right of Judicial Review by the Supreme Court of the State of Utah.** As required by Utah Code Ann. §63G-4-208(1), the Board hereby notifies all parties to this proceeding that they have the right to seek judicial review of this Order by filing an appeal with the Supreme Court of the State of Utah within 30 days after the date this Order is entered. Utah Code Ann. §63G-4-401(3)(a) and 403.

298. **Notice of Right to Petition for Reconsideration.** As an alternative, but not as a prerequisite to judicial review, the Board hereby notifies all parties to this proceeding that they may apply for reconsideration of this Order. Utah Code Ann. § 63G–4–302, entitled "Agency Review – Reconsideration," states:

> (1) (a) Within 20 days after the date that an order is issued for which review by the agency or by a superior agency under Section 63G–4–301 is unavailable, and if the order would otherwise constitute final agency action, any party may file a written request for reconsideration with the agency, stating the specific grounds upon which relief is requested.
> (b) Unless otherwise provided by statute, the filing of the request is not a prerequisite for seeking judicial review of the order.
> (2) The request for reconsideration shall be filed with the agency and one copy shall be sent by mail to each party by the person making the request.
> (3)(a) The agency head, or a person designated for that purpose, shall issue a written order granting the request or denying the request.
> (b) If the agency head or the person designated for that purpose does not issue an order within 20 days after the filing of the request, the request for reconsideration shall be considered to be denied.

Id.

The Rules of Practice and Procedure before the Board of Oil, Gas and Mining entitled "Rehearing and Modification of Existing Orders" state:

> Any person affected by a final order or decision of the Board may file a petition for rehearing. Unless otherwise provided, a petition for rehearing must be filed no later than the 10th day of the month following the date of signing of the final order or decision for which the rehearing is sought. A copy of such petition will be served on each other party to the proceeding no later than the 15th day of that month.

Utah Admin. Code R641–110–100.

See Utah Administrative Code R641-110-200 for the required contents of a petition for rehearing. The Board hereby rules that should there be any conflict between the deadlines

provided in the Utah Administrative Procedures Act and the Rules of Practice and Procedure before the Board of Oil, Gas and Mining, the later of the two deadlines shall be available to any party moving to rehear this matter. If the Board later denies a timely petition for rehearing, the aggrieved party may seek judicial review of the order by perfecting an appeal with the Utah Supreme Court within 30 days thereafter.

299. The Board retains exclusive and continuing jurisdiction of all matters covered by this Order and of all parties affected thereby; and specifically, the Board retains and reserves exclusive and continuing jurisdiction to make further orders as appropriate and authorized by statute and applicable regulations.

300. The Chairman's signature on a facsimile copy of this Order shall be deemed the equivalent of a signed original for all purposes.

ISSUED this 22nd day of November, 2010.

Utah Board of Oil, Gas & Mining

Douglas E. Johnson, Chairman

CERTIFICATE OF MAILING

I hereby certify that I caused a true and correct copy of the foregoing Order to be mailed by first class mail, postage prepaid, the 23 day of November, 2010, to:

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